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UNIVERSITY OF GONDAR

COLLEGE OF MEDICINE AND HEALTH SCIENCES

INSTITUTE OF PUBLIC HEALTH

SICKNESS ABSENTEEISM AND ASSOCIATED FACTORS AMONG HORTICULTURE EMPLOYEES IN LUME DISTRICT, SOUTHEAST ETHIOPIA.

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A THESIS SUBMITTED TO UNIVERSITY OF GONDAR COLLEGE OF MEDICINE AND HEALTH SCIENCES, INSTITUTE OF PUBLIC HEALTH IN THE PARTIAL FULFILMENT OF THE REQUIRMENTS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH.

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GONDAR, ETHIOPIA

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APPROVED BY EXAMINING BOARD

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EXAMINER/S

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List of abbreviations

AOR Adjusted odds ratio

CIConfidence Interval

COR Crude odds ratio

CMHSCollege of medicine and Health Sciences

EPI-INFO Epidemiological information

FIOH Finish Institute of Occupational Health

GHQGeneral Health Questionnaire

GJSSGeneric Job satisfaction Scale

HrsHours

ILOInternational Labor Organization

IPHInstitute of Public health

MDGs Millennium Development Goals

MPHMaster of Public Health

MOLSAMinistry of Labor and Social Affairs

MSDs Musculoskeletal Disorders

NIOSHNational Institute for Occupational Safety and Health (USA)

OHSOccupational health and safety

OTOvertime

SPSSStatistical package for Social Science

UoGUniversity of Gondar

USAUnited States of America

WPSSWorkplace Stress Scale

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Abstract

Introduction: Throughout the world sickness absenteeism, one indicator of health status is continues to be serious public health problems causing lost labor time and obstacle to productivity. This problem is continued to be of great concern where underprivileged occupational health services (less than 5%) exist in developing countries including Ethiopia.

Objective: To determine prevalence of sickness absenteeism and associated factors among horticulture employees in Lume District, Southeast Ethiopia.

Methods: Institution based cross sectional study including 600 employees from all horticulture organizations in the district from March to April, 2014. Stratified sampling by simple random sampling among the three main departments was used to select study participants. Data were collected using pre-tested and interviewer administered structured questionnaire by trained data collectors and analyzed using SPSS version 20. Bivariate and multivariate logistic regressions were used. Significance level was obtained withAOR at 95% CI and p<0.05.

Results: From the total 590 respondents,424(71.9%) were female and 418 (70.8%) werein agecategory of 19 to 29 years.The three month prevalence of sickness absenteeism among horticulture employees was 58.8%with 6.6 average working day lostper employee resulting in loss of 74,203 birr in the last three months. Being secondary education [AOR=0.49, 95% CI :(0.30, 0.79)] & not getting attendance-based incentive [AOR=0.49, 95% CI (0.32, 0.75)] were protective while lack of periodic medical examination [AOR=3.58, 95% CI (2.10, 6.09)], job dissatisfaction [AOR=1.76, 95% CI (1.16, 2.65)], being stressed with workplace [AOR=2.02, 95% CI (1.38, 2.94)] and poor in general health status [AOR=3.17, 95% CI (2.07, 4.87)] were factors positively associated with sickness absenteeism.

Conclusion:prevalence of sickness absenteeism among horticulture employees was high when compared with other study in developing country. Being secondary education, getting attendance-based incentive, lack of periodic medical examination, job dissatisfaction and poor in general health status were significantly associated with sickness absenteeism. Therefore, Interventions should focus on promoting higher education, conducive work environment and improving health of employees and periodic health surveillance.

1. Introduction

1.1. Statement of the Problem

Sickness absenteeism, one type of non-scheduled work absence, is becoming the global public health problem reflecting health problems of employees at workplace causing loss of man-hours, productivity and workplace disputes(1-3). It has also grave consequences for the global economies(4).

According to International Labor Organization (ILO) 2008, more than 317 million accidents and diseases occurred on the job annually; and about two-thirds of those problem caused workforces away from work for four working days resulting in economic effects and loss of labor time in both developing and developed countries. In sub Saharan Africa, 42 million work-related accidents caused at least three days absence from work in which agriculture plays major role (2, 5, 6). In Liberia in 2009, more than 100,000 workers in suffered occupational injuries resulting in the total lost work time of 1.5 million days and in Ethiopia about half million accidents caused at least four days off work with agriculture among the top leading sectors with under reporting as a problem (7). However,these reports didn't consider working days lost due to non-work related health problems that many workers were affected by.

Thisproblem has received attention in recent years globally by different actors like company owners, managers, public health researchers, economists, government officials and lawyers (4, 8). Many studies have also indicated that sickness absenteeism is the result of not only illness but themulti-factorial contribution of other workplace, individual characteristics and psychosocial factors(1, 3, 9)

Currently, horticulture investment is the most growing agriculture sector in East Africa specially in the Ethiopianlow land region, employing several citizens providing job opportunity(10).But where many workers are engaged in this hazardous workplace in which occupational health and safety (OHS) services coverage is poor which less than 5%(11). Thus, many organizations may face challenges from workers'attendance due to different health problems.

This also reflect in part the effects of physical demands of the job, individual employee characteristic, the hazardous work conditions and organizational factors in the workplace (4, 12).

The increasing impact and costs of sickness absence have been well known in developed nations(7, 13). However, there is limited evidenceon magnitude and the role of different factors other than illness as prognostic factorsforsickness absenteeismat workplace indeveloping countries including Ethiopia. Moreover, many organizations, remarkably do not have properdata recordingand reportingsystems to generate statistics that shows howcosmic the problem at national level.

Therefore, it is evident from the review of literature that the study of sickness absenteeism in Ethiopia in general and particularly in horticulture, is not yet touched;thus, this study is an endeavor to contemplatemagnitude and the important enabling or disabling factors ofsickness absenteeism among employees of thissector.

1.2. Literature Review

1.2.1. Magnitude of Sickness Absenteeism

The excess costs arise from Sickness Absenteeismcause disruption to the business, make it difficult to deploy the workforce, and have a profound effect on productivity, profit, and employee morale. In addition, it has a material effect on the bottom line of most companies, yet few managers really understand the magnitude of the problem at their organization. In USA9% workforce or approximately almost one in ten workers is absent due to sickness(13).Study in Denmark indicated11%–12% of the workforce are absent from work due to illness for more than two weeks a year(14) and in Sweden about 40% of the individuals at work were absent due to illness in a year(15).In 70 % of all sickness absence cases, the reason for absence is not convincing and other factors influence the decision to be absent(16).

Study done in Iran revealed that 79.7% employees were leaved the organization due to the illness (17). In study done in Indian among Business process Outsources (BPO) employees indicated Sickness Absenteeismaccounted 20% of all absenteeism (18). As per study conducted among Benin Hospital in Nigeria, of all self-reported absenteeism, ill health absenteeism accounted 54.6% (4).

According to research done in Nigeria the, the prevalence rate of sickness Absenteeismwas roughly 25% per annum and the duration of sickness absence was 3 days on average. The frequency of sickness absence is highest among junior workers, females and the unmarried group(19).In the same country, the research conducted by the same author in teaching hospital revealed that an overall proportion of sick absentee workers were 15.8% with an average of 3 spells of sickness per year per absentee while the duration of sickness per absentee was 5.6 days per year (20). Study conducted in Ethiopia indicated 53.9% of the injured employees were absent from work for more than 3 days due to workplace accidents(21).

1.2.2. Factors associated with sickness absenteeism

1.2.2.1. Socio-demographic factors

Study done in Nigeria indicated that younger employees less than 35 years of age has significantly higher spells and duration of sickness absence than others (20). The mean number of spells of absence and the mean number of days lost per worker were statistically significantly higher in women than in men. In addition, the absenteeism rates in the older group, the widowed and married were considerably higher and a positive correlation between age and duration of employment was found (4, 14, 22, 23)

As study conducted in India indicated, as there is no effect of age, work experience, education, marital status on Sickness Absenteeism. The key reasons for sickness absenteeism according to this study were Alcoholism andShift work(24). However, according to study in Estonia, lower education and being female had significantly associated with Sickness Absenteeism(23, 25).

1.2.2.2. Health related factors

A study in Sweden showed that psychiatric and musculoskeletal symptoms were significantly associated with absenteeism (15). According to the research conducted in Japan, the common cold was an important occupational health problem causing of absence in the workforce (9). According to study done in Saudi Arabia, respiratory infections and diseases of the digestive and musculoskeletal systems are the major diseases causing workers' absence(25).In South Africa, HIV/AIDS and its associated medical conditions weresignificantly responsible for much of absenteeism at workplace (26). In Nigeria,Sickness Absenteeism was significantly associated withAcute febrile illnessand parasitic diseases, with malaria the most(4, 19).

Study conducted on Sweden, Nigeria and Estonian employees revealed that poor self-ratedhealth status was significantly associated with sickness absenteeism(15, 22, 23, 25).

1.2.2.3. Workplacefactors

As per research conducted in Europe, low supervisor and social support, and job satisfaction were associated with sickness absenteeism(24, 27).

According to a survival analysis the probability of organizational, manager and colleagues support for sickness absence decreases significantly with time and frequency of absence and promoted early return to work(8). Additionally, increasedSickness Absenteeism occurs with increased and inflexible working hours and overtime work. Shift work had an inconsistent relationship with attendance. According to studies in South Africa and Britain, Pre-employment medical screening had doubtful effect on influencing absenteeism(26, 28).In South Africa,high Sickness Absenteeism levels was associated with bad staff morale and discipline, poor management, inadequate remuneration and poor working conditions (26).

A study done on Japanese and Estonian employees revealed that job satisfaction is inversely associated with sickness absence (9, 23). Additionally, low job satisfaction predicted absences and that satisfaction and psychological distress were independent predictors of absences. Higher rates of absenteeism were recorded among those stressed, not satisfied with the working environment and experienced job dissatisfaction(4). Other study agreed that dissatisfied employees would use their sick leave to “withdraw” from the workplace. As study done in Norway, little support from superiors or colleagues, and rewards for good work attendance were negatively associated with sickness absence (27). Workplace stress, low social and supervisor support and low job control were significantly associated with sickness absence (8).

1.2.2.4. Substance use behavior

Swedish and Norway studies found that consumption of alcohol and cigarette smoking were found to be associated with a 13% increase in sickness absence among men (29).

1.2.3. Conceptual Framework

The following conceptual framework, developed based on literature review for this study,was used to indicate the interaction of independent variables with each other's and with the outcome variable, sickness absenteeism.

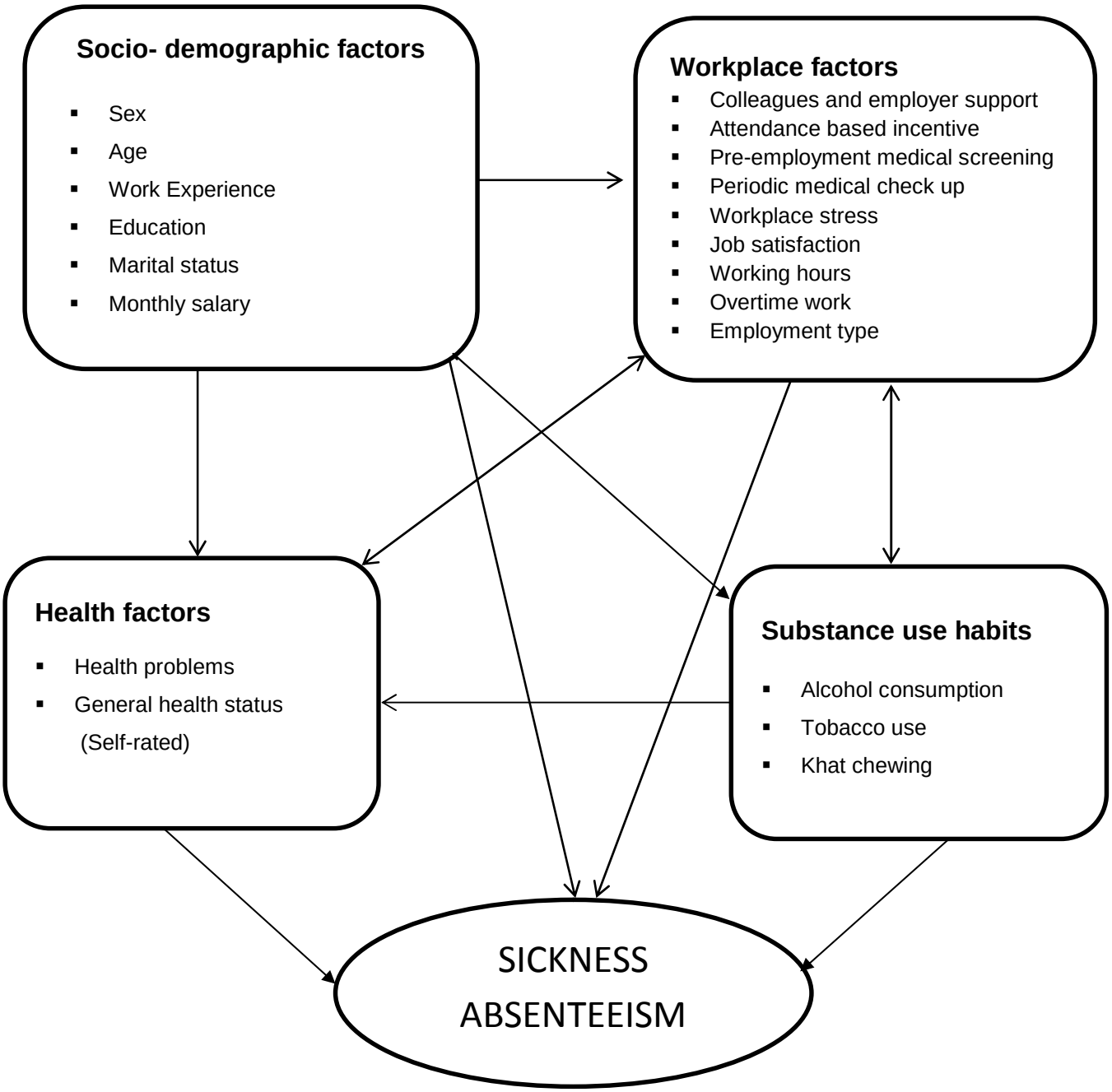

Figure 1.Conceptual framework for studying sickness absenteeism among Horticulture employees in Lume District, Southeast Ethiopia, April 2014

1.3. Justification

The daily hardship cost of human power is vast and the economic burden of occupational accidents and diseases was estimated to be 4% of global gross domestic product (GDP) lossand about one billion working days loss each year. This data consider only cost related to workplace health problems.

This takes a particularly heavy toll in developing countriesincluding Ethiopia where a large part of the population is engaged in hazardous sector, such as agriculture especially horticulture where many hazardous chemical are using, the most growing sector in east Africa, where underprivileged occupational health care services exist (2, 12).Thus the overall health problems could affect mental, physical and social wellbeing's of the employees, resulting in absence from work. These kinds of absenteeism could have negative impacts on organizations, workersandburden to society.

However, as comprehended from literatures using different data bases and searching engines, study has not been carried out to determine the prevalence and factors associated with sickness absenteeism among horticulture employees, the most dominant workforce in Ethiopia.

Therefore, this study aimed to determine the prevalence of sickness absenteeism and associated factors among horticulture employees. Furthermore, the finding of the results could provide information on workplace illness and injury among employees in horticulture organizations and also have an important public health contribution by providing information for employers and policy makers to design strategy to preventdifferent health problems that working population were facingand improve employees' attendance among this segment of population.

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2. Objective

2.1. General Objective

To determineprevalence of sickness absenteeism and associated factors among horticultureemployees in Lume District, Southeast Ethiopia from March 15 to April 18, 2014.

2.2. Specific Objectives

-Todetermine prevalence of sickness absenteeism among horticulture employees in Lume District, Southeast Ethiopia from March 15 to April 18, 2014.

-To identify factorsassociated withsickness absenteeism among horticulture employees in Lume District, Southeast Ethiopia from March 15 to April 18, 2014.

3. Methods

3.1. Study Design and period

Aninstitution based cross sectionalstudy design was employed from March 15 to April 18, 2014.

3.2. Study Area

The study was conductedin Lume district (Woreda)one of the 13 districts of East Shoa zone in theOromia regional State, in the Great Rift Valley with Modjo the capital townof district, 73 KMs far from the Addis Ababa to eastern.This district is well known for its investmentswhere over 30 factories were found specially horticultures. Additionally, of the total 22 horticulture organizations (10 floricultures and 12 vegetable &fruits) found in the east Shoa zone, eight (4 floricultures and 4 veg-fruits) were found in this district, employing more than 80% of all employedworkers in the district. In each organization there were three similar major departments, production, technical and management. At the beginning of 2014, about 5900 employees were reported from this sector in which female workers 3710 (62.9%) of the totalemployees during this report time(30).

According to the 2007 national census report, a total population of this district was 117,080 of whom 51.4%were men,and 33% were urban dwellers. The majority of the inhabitants were of speakers Afan Oromo and Amharic (31).Additional majority workers can speak Amharic as many workers were from coming from Amhara region, bounds this district in North and Southern region.

3.3. Source and study Population

3.3.1. Source population

All horticulture employees in Lume district

3.3.2. Study population

All horticultureemployees in Lume district

3.3.3. Inclusion and Exclusion Criteria

- **Inclusion criteria**

All workers in horticulture organizations who haveworked at least three months prior to the study period considering 45 days probation period and recall bias.

- **Exclusion Criteria**

Pregnant women on maternity leave

3.4. Sample size determination and sampling procedure

3.4.1. Sample size Determination

EPI info version 7was used to determine the sample size required for this study by considering 5900total studypopulation from all horticulture organizationsand assuming expected proportion of the factor under study 50% with95% confidence levelsince there was lack of related studies conducted on agriculture(horticulture) employees, 4% margin of error(to reduce sample result to deviate from true population resultsto be minimum& also to increase sample size) adding 10% non-response rate, the total sample size was 600.

3.4.2. Sampling Technique and Procedure

All eight horticulture organizations were purposively included for better generalizability and validity, and total sample size was proportionally allocated to each organization. Stratified random sampling technique was applied to get the desired sampling subjects. For the purpose of this study, each eight organizations were categorized into three main departments (strata) namely, production, technical and employees under management department. The required sample sizes for each stratum of organizations were allocated using probability proportional to size. Sampling frame consisted of all workers were obtained from respective organizations and simple random sampling technique using lottery method was administered to select study subjects.

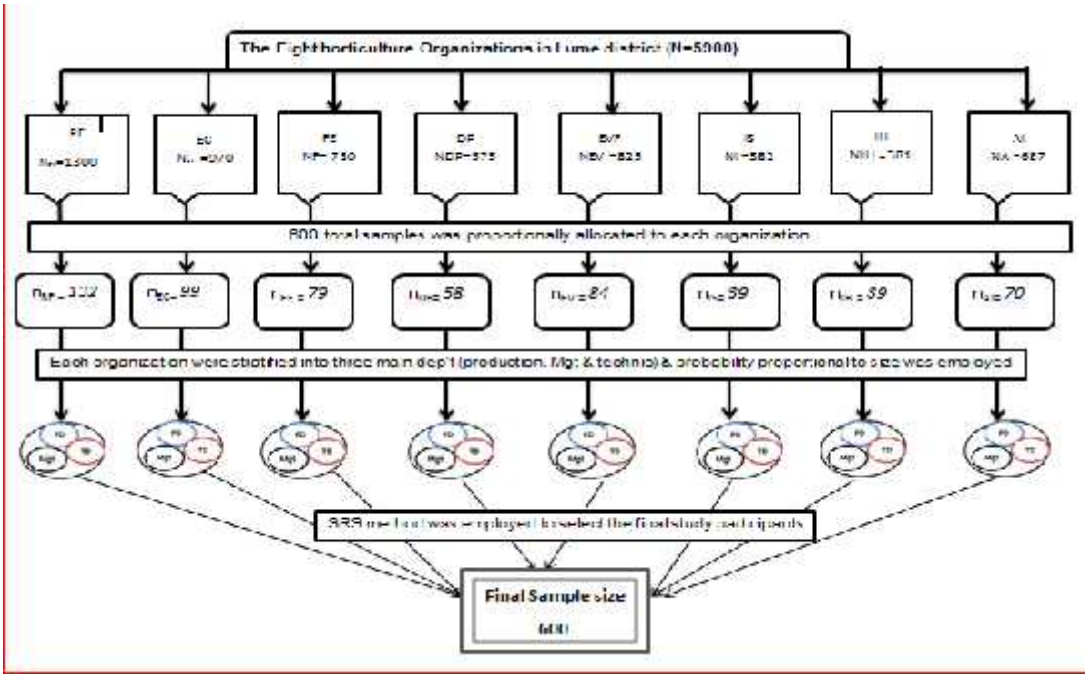

Figure 2.Diagrammatic presentation of sampling procedure on prevalence of sickness absenteeism and associated factors among horticulture employees in Lume District, Southeast Ethiopia. April

3.5. Variables of the Study

3.5.1. Dependent variable

Sickness absenteeism (yes/no)

3.5.2. Independent variables

Socio-Demographic factors:

- Sex, age, marital status, education, work experience&monthly salary

Workplace factors:

- Colleagues and employer support, presence of attendance based incentive, pre-employment medical screening &periodic medical checkup, workplace stress, job satisfaction, employment type, working hours and overtime work

Health related factors:

- Perceived Health problems and individual general health status(Self-rated)

Substance use habit relatedfactors:

- Alcohol consumption, cigarette smoking andKhat chewing

3.6. Operational Definitions

- Horticulture – organizationthat produce fruits, vegetables and flowersand avail on level of local and global market requirements to the point of consumption or use(10).
- Sickness absenteeism– self-reported employees' absence from their normal dutyfor the reasons stemming fromhealth problem in the past three months.
- Workplace stress– when individual employee's sum of WPSSscore was twenty one or morei.e. 21 to 40(32) it was considered as stressed with work
- Dissatisfied with job - when GJSS summation score of individual employeewasless than 32 which was 10-31 (33).
- Poor health status- when the mean scores of GHQ of individual was> 2(34).
- Permanent worker-Any contract of employmentbetween employee and employer concluded for an indefinite period(35)
- Temporary worker- Anyemployment contract between employee and employer made for definite period or piecework(35).
- Overtime work- worker was considered as worked overtime when s/he had worked on average ≥2hours per week within the past 3 months(35)

- Smoker – employee who were smoking at least onecigarette a dayfor at least one year(3).
- Alcohol drinker (consumer)– employee who drink at least tendrinks per week for men and seven drinks per week for womenfor at least one year (3).
- Khat chewer-chewing Khatat least five times a week for at least 1 year.
- Attendance based incentive- incentive or bonus provided for employee for his/her being only present at work
- Perceived health problem- any illness, either told by physician or perceived by themselves, without physician certified verification, that employees reported as cause/s for their absences in the last three months.

3.7. Data Collection tools and procedure

Data was collected using interviewerадministered structured and standard questionnaire of workplace stress known as workplace stress scale (WPSS) developed by Marlin Company and the American Institute of Stress (32),generic job satisfaction scale (GJSS) developed by Scott Macdonald and Peter Macintyre (33)and the general health questionnaire (GHQ) developed byNational Institute for Occupational Safety and Health (NIOSH/CDC)(34),withsome modification. The structured questionnairedeveloped based on literature review contained questions addressing the socio-demographic characteristics of respondents, self-reported frequency, absent days and reasons for sickness absenteeism in the past three months and lastly individual substance use behavioral questions. The questionnaire was prepared in Englishand translated to Amharic by the legal certified language translator and retranslated back to English to verify the consistency and content of translation.

In order to minimize participation bias, the objective and significance of the study was explained in detail to the respondents and anonymity assured them during administration of the questionnaireas studyaimed at self-report response of individual to collect real data based on their trust and confidentiality.

The supervisor and twelvedata collectors were employed after trained for one day about ethical issues like voluntary participation, privacy and confidentiality of participants, who were excluded, data collection tools,operational definitions, the time of data collection, timely collection and reorganization of the collected data from respective horticulture organizations and submission date. The data collectors were health professionals.

3.8. Data Quality management

To ensure the data quality, standard questionnaire was used to collect data. Before conducting the actual study, the questionnaire was pre-testedon 40 individualsin one floriculture farm in other district with similar setup and population with this study workplaces and population;and necessaryadjustment was made includingimprovinginterview timeand increment of number of data collectors from eight to twelve as weather conditions was harsh and some questions with predefined options weremodified as necessary.

The principal investigator and supervisor coordinated the interview process, spot-checked and reviewed the completed questionnaire on a daily basis to ensure the completeness and consistency of the data collected. Regular personalcontact (mobile) with data collectors were madeto solve problems faced during data collections. Three cycle visits were made to get those on sick leaves and other leaves, other than those on maternity leaves.

3.9. Data processing and analysis

The collected data was checked, cleaned and entered to Epi Info version 7 and exported to SPSS version 20 for further data cleaning and analysis. Frequency distributions were obtained to check for data entry error (missing/unrecognized values and codes). Descriptive statistics, tables,graphs, means and frequency distribution wereused to present the information. For all independent variables, Pearson chi-square-test using crosstab was computed to check presence of association with outcome variable. Additionally, each independent variable was fitted separately into bivariate logistic modelanalysisto evaluate for degree of association with sickness absenteeism. Thus, variable with p-value < 0.20 wasexported to multivariate logistic regressionsfor further examiningdegree of associationwith other variables and to see effect of confounders. Necessary assumptions for the application of multivariate logistic regression were fulfilled by the Hosmer and Lemeshow's goodness-of-fit teststatistics was computed yielding large a p-value (Chi-square=5.72, df=8 and p=0.679). Significance level was obtained at odds ratio with 95% CI and p-value <0.05 to evaluate degree association between factors and sickness absenteeism.

In addition, for job satisfaction scoreusing GJSSwas computed based on a five point likert scale ranging from strongly disagree (one) to stronglyagree (five)and adding the responses of 10 question together for individual respondents gavehow satisfied workers with their job. The summation was be interpreted as if 42 to 50 as very high (very happy and satisfied), 39 –41 as high, 32 to 38 as average, 27 to 31as low and 10 to 26 as very low (very disappointed) with job.Ifthe overall summation score of employees was 32 to 50 (average, satisfied and very satisfied) workers was considered assatisfied and if the score was 10 to 31(very dissatisfied and dissatisfied) worker was categorized asdissatisfied. Then satisfied and dissatisfied were analyzed in bivariate and multivariate logistic regression as one categorical variable with respect to outcome variable.

For GHQ, the scales includenever (one), occasionally (two), sometimes (three), fairly often (four) and Very often (five). These items are not necessarily related to severe physical illness but are things that workers experience in their day to day lives. Adding the response of the 13 question's responsetogether and getting themean scores gaveself-rated general health status of employeesas: 1= good, 2=fairly good, 3=average,4=fairly poor, 5=poor. Theoverallresults were dichotomized as 1 to 2 (good and fairly good) indicating good healthand greater than two(average, fairly poor and poor) as poor healthand the dichotomized was thenanalyzed in logistic regression as necessary.

Finally, for workplace stress analysis usingeight questions, the WPSSwith likert scales response of never (one), rarely (two),sometimes (three), often (four)to veryoften (five). To get the score, the numbers respondent'sanswered (ticked)to all of the eight questions were added to get sum of the scores, and then the individual sum scores was compared with the following: if the total score was lessthan 21, then stress was low and considered as non-stressedwith workplace and ifthe sum of the score was 21 or above then the stress level was potentially dangerous and considered as stressed with workplace. Then the dichotomized stressed and non-stressed was entered into bivariate and multivariate logistic regression as one variable, workplace stress, to explore its effect and degree ofassociation withsickness absenteeism.

3.10.Ethical Consideration

The ethical approval and clearancewas obtained from Institutional ethical review Board (IRB) of the University of Gondar (UoG). The supporting letter was alsoacquiredfrom Lume district Labor and social Affairs office. The General Managers/managers of organizations under the study area were communicated through an official letter and permission was secured before the research was conducted. The necessary explanation about the purpose and procedure of the studywas givento the employees and verbal as well as written consent was obtained from respondents. To assure confidentiality, the questionnaire excluded respondents' identity indication (name and organizational identification card) and moreover name of the organizationswere coded. It was honestly told to the participants as the information was kept confidential. The participants were also informed as they had the right to discontinue the research at any time.

3.11. Dissemination of the result

The thesis paper was submitted and presented to University of Gondar, College of medicine and Health Sciences, Institute of Public health as part of Master of Public Health thesis. Findings will also be presented in different seminars and workshops, and finally the paper will be submitted to scientific journal for publication.

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4. Results

In this study, a total of 600 employees were included in the study of which 590 respondents' completed questionnaires properly making response rate 98.33%. The restten questionnaireswereincomplete(five), detached pages (three) and two participants discontinued the interview.

4.1. Socio-demographic characteristics

From the total respondents, 424 (71.90%) were females and 442 (74.9%) were Christian in religion. The age of study participants ranges from 17 to 63 years and the mean age with standard deviationof respondents was 26.9±7.1 year and 418 (70.8%) respondents were in the age category of 19 to 29 years old. Among the total respondents, 263 (44.6%) were married and 194 (32.9%) had attended primary education. The median of respondents'gross monthly salary was 722.8 birr(as the mean were affected by the extreme value & did not fulfill normality assumption) and530 (90%)respondents were paid ≤1500 birr per month. Four hundred sixteen(70.5%) of the respondents hadless than five yearwork experiencesandthe mean of 3.6 (± 2.6) yearwork experiences (Table1).

Table 1.Socio- demographic characteristics of horticulture employees in Lume district, Southeast Ethiopia, April 2014

Variables	Frequency(n=590)	Percent (%)
Sex		
Male	166	28.1
Female	424	71.9
Age		
Mean ± SD	26.9 ± 7.10	
≤18	23	3.9
19-29	418	70.8
30-40	114	19.3
>40	35	5.9
Marital Status		
Single	252	42.7
Married	263	44.6
Widowed/divorced	75	12.7
Educational status		
No education	186	31.5
Primary education	194	32.9
Secondary	153	25.9
Above secondary education	57	9.7
Religion		
Christian	442	74.9
Muslim	148	25.1
Monthly salary(ETB)		
Median	722.8	
≤700	285	48.3
701-1500	245	41.5
>1500	60	10.2
Work experiences		
Mean ± SD	3.6 ± 2.6	
<5	416	70.5
≥5	174	29.5

4.2. Substances use characteristics of horticulture employees

Most of the study participants were non-substance users with only 45 (7.6%) smokers and 142 (24.1%)alcohol users.

Table 2. Substances use characteristicsof horticulture employees in Lume district, Southeast Ethiopia, April 2014

Variables	Frequency (n)	Percent (%)
Chewing Khat		
Yes	96	16.3
No	494	83.7
Smoking habit		
Yes	45	7.6
Non	545	92.4
Alcohol Consumption		
Yes	142	24.1
No	448	75.9

4.3. Frequency of WorkplaceVariables

According to this study,526 (88.6%)respondents were permanently employed and 523 (88.6%) of the respondents hadworkedfor normal working hours (≤48 Hrs/week). Four hundred twenty three (71.7%) of the respondents were dissatisfied with their current jobsand 370 (62.7%) were stressed with their workplaces.Similarly, about three fourth of thetotal respondentsreported poor general health status based on their self-rated GHQ (table 3).

Table 3.Frequency of workplace characteristics of horticulture employees in Lume district, Southeast Ethiopia, April 2014

Variables	Frequency (n)	Percent (%)
Weekly Working Hrs.		
≤48	523	88.6
>48	67	11.4
Overtime work		
yes	394	66.8
No	196	33.2
Employment type		
Permanent	526	89.2
Temporary	64	10.8
Job satisfaction		
Satisfied	167	28.3
Dissatisfied	423	71.7
Workplace stress		
Not stressed	220	37.3
Stressed	370	62.7
Pre-employment medical screening		
Yes	63	10.7
No	527	89.3
Periodic medical checkup		
Yes	86	14.6
No	504	85.4
General health status		
Good	150	25
Poor	440	75
Received attendance based incentive		
Yes	183	31.0
No	407	69.0

4.4. Prevalence of Sickness absenteeism among horticulture employees

From the total 590 respondents, 347 had at least one spells of sick absence in the past three months making prevalence rate of sickness absenteeism among horticulture employees58.8%with 95% CI (54.9, 62.5) and there is no difference in the prevalence among the two major horticulture categories (floriculture and veg-fruits) in which prevalence of sickness absenteeism among employees of floriculture and Veg-fruitswere 58.7% with 95% CI (54.1, 64.1) and 59.0% with 95% CI (52.2, 65.3) respectively.

Theaveragefrequency (spells)of absence was 1.73 with 95% CI (1.63-1.84)in three months. The meannumber of lost working days per absentee was 6.63 while the total lost working days were2302respectivelyresulting in an overall 74,203birr lost inthe last three months.From the total absentees, about 198 (57.1%) reportedone absence spells and 120 (34.6%) reported two to three spells giving the total 601 spells among the respondents. Two hundred fifty four respondents (73.2%) were absent for short term absence (1-7 days) and the remaining wereabsent for more than sevenworking daysin the last quarter ofthe year (table 4).

Table 4. Sicknessabsenteeism measures among horticulture employees in Lume district, Southeast Ethiopia, April 2014

Measures of Frequency	Sickness Absenteeism (n = 347)	Percent (%)
Frequency(spell of absence)		
Mean	1.73 spells*	
Once	198	57.1
2-3 times	120	34.6
≥4 times	29	8.4
Working days lost		
Mean	6.63	
Total lost days	2302	
1-7 days	254	73.2
8-15 days	60	17.3
>15 days	33	9.5
Total Absence frequency	601	
Frequency rate (# frequency/#absentees**	601/347 = 1.73 spells*	

***** The same result with different methods!
****** # means number

4.4.1. Distribution of Sick absenteeism by socio-demographic and substance use behavior of horticulture employees

The prevalence of sickness absenteeism was highest among femaleworkers255(73.5%), those in age category of 19 to 29 years old 252(72.6%), married162(46.7%), those whowere in primary and no education level 242(69.7%).

Table 5.Sickness absenteeism by Socio-demographic and substances use characteristics amonghorticulture employees in Lume district, April 2014

Category of variables	Sickness absenteeism		p-value**
	Yes (n=347) n (%)	No (n=243) n(%)	
Sex			0.295
M	92(26.5)	74(30.5)	
F	255(73.5)	169(69.5)	
Age			0.424
≤18	10(2.9)	13(5.3)	
19-29	252(72.6)	166(68.3)	
30-40	65(18.7)	49(20.2)	
≥41	20(5.8)	15(6.2)	
Marital Status			0.100
Single	136(39.2)	116(47.7)	
Married	162(46.7)	101(41.6)	
Widowed& divorced	49(14.1)	26(10.7)	
Educational status			0.013*
No education	116(33.4)	70(28.8)	
Primary education	126(36.3)	68(28.0)	
Secondary education	76(21.9)	77(31.7)	
Above secondary	29(8.4)	28(11.5)	
Work experiences			0.007*
<5 Years	230(66.3)	186(76.5)	
≥5 Years	117(33.7)	57(23.5)	
Monthly salary(ETB)			0.439
≤700	163(47.0)	122(50.2)	
701-1500	149(42.9)	96(39.5)	
>1500	35(10.1)	25(10.3)	
Khat Chewing			0.423
Yes	60(17.3)	36(14.8)	
No	287(82.7)	207(85.2)	
Smoking habit			0.275
Yes	23(6.6)	22(9.1)	
No	324(93.4)	221(90.9)	
Alcohol consumption			0.767
Yes	82(23.6)	60(24.7)	

No	265(76.4)	183(75.3)

*Significantat p-value <0.05 ** Pearson chi-square test p-value

4.4.2. Distribution of Sickness Absenteeism by workplaceand health characteristics

Of the total 347 sick absentees, only 70(20.2%) and 41(11.8%) had got social and economic supports from their colleagues and organizations respectively when they were ill absent or returned back to their work. One hundred twenty four (35.7%) of 347 had got incentive for being on their work, 318(91.6%) didn't take any pre-employment medical screening when they were employed first,and only 36(10.4%) of absentees were checked for their health status during the last twelve months as medical checkup would be under taken mainly per six months or a year. Similarly, 263(75.8%) and241 (69.5%)were dissatisfied with their job and stressed by their workplace respectively(table 6).

Accordingly, 121(34.9%) of sick absenteeswere not reported/noticed to their employersas early as they were ill while the rest 226(65.1%) had informed their employers early. Despite informing their organizations or employers, 198 (57.1%) of sick absentees were penalized (salary deducted) by their supervisors/employers for their being sick absent and the rest 149(42.9%) did not be penalized.

Table 6.Distribution of sickness absenteeism of horticulture employees in Lume district by workplace and health characteristics, April 2014

Category of variables	Sickness absenteeism		
	Yes (n=347) Frequency (%)	No (n=243) Frequency (%)	X^2-test (p-value)
Received attendance based incentives			0.003
Yes	124(35.7)	59(24.3)	
No	223(64.3)	184(75.7)	
Employment type			0.526
Permanent	307(88.5)	219(90.1)	
Temporary	40 (11.5)	24(9.9)	
Pre-employment medical Screening			0.029*
Yes	29(8.4)	34(14.0)	
No	318(91.6)	209(86.0)	
Periodic medical checkup			0.001*
Yes	36(10.4)	50(20.6)	
No	311(89..6)	193(79.4)	
Weekly working Hrs			0.140
≤48	302(87.0)	221(90.9)	
>48	45(13)	22(9.1)	
Overtime work			<0.001*
Yes	259(74.6)	135(55.6)	
No	88(25.4)	108(44.4)	
Job satisfaction			0.008*
Satisfied	84(24.2)	83(34.2)	
Dissatisfied	263(75.8)	160(65.8)	
Workplace stress			<0.001*
Not stressed	106(30.5)	114(46.9)	
Stressed	241(69.5)	129(53.1)	
General health status			<0.001*
Good Health	65(18.7)	85(35.0)	
Poor health	282(81.3)	158(65.0)	

∗significant at p-value <0.005

4.4.3. Perceived Causes of Sick Absenteeism of horticulture employees

The most common health problems that led workers away from their work were minor illness, which included those complaining headache (83 cases) andcommon cold (86 cases), accounted 169 (48.7%),typhoid127(36.6%), diarrhea 124(35.7%), musculoskeletal disorders (MSDs)112(32.3%) and malaria 82(23.6%) and other diseases (fig.3 below).

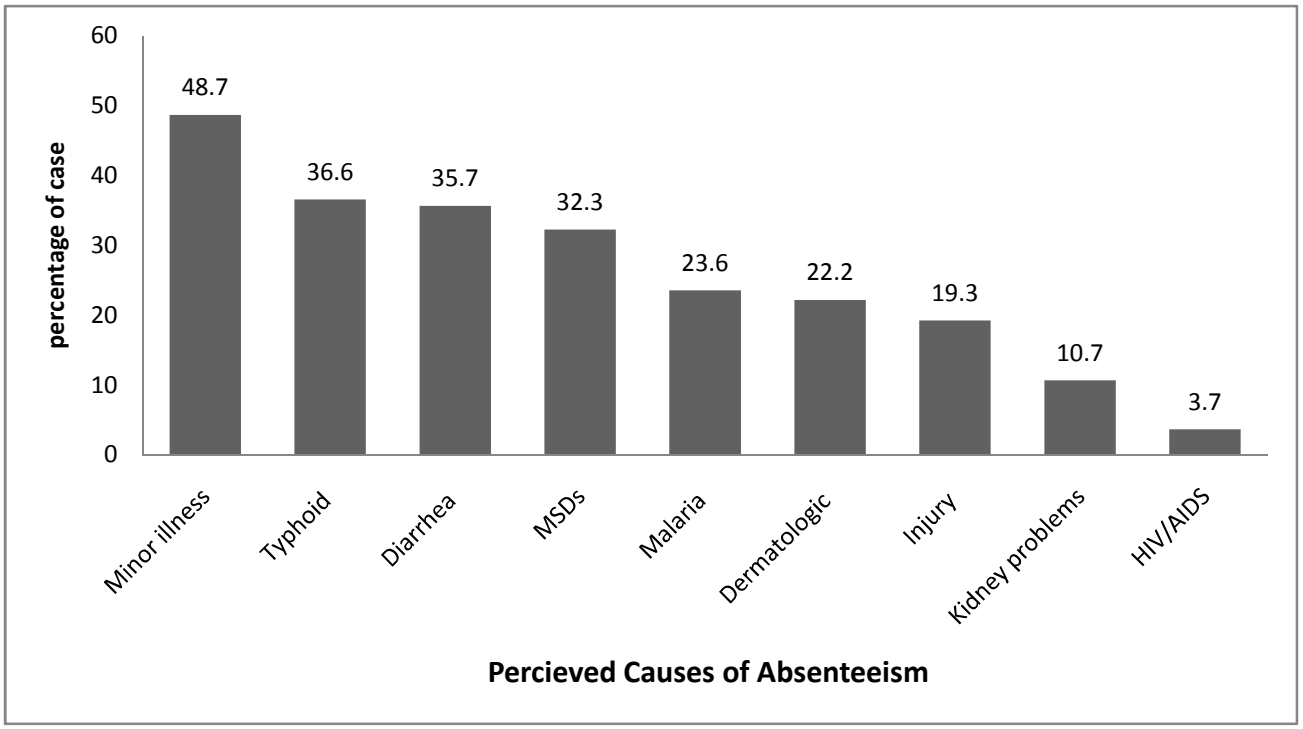

Figure 3. Major causes of Absenteeism*(either told by physician or perceived by worker*) among horticulture employees in Lume District, southeast, Ethiopia, April, 2014.

NB. For this study:

MSD: back pain and pain to lower & upper limbs

Minor illness: minor headache & common cold

Dermatologic problems: skin irritation and allergic

Injury: injury at workplace or traffic accidents

4.5. Factors associated with Sickness absenteeism

Bivariate analysis showed that nine variables likesex, age, marital status, monthly wage, employment type,working hours, chewing Khat, alcohol consumption and smoking habit were not statistically significant with sickness absenteeismwhileeducation, work experience, attendance based incentive, pre-employment medical screening, periodic medical checkup (surveillance), overtime work, job satisfaction, workplace stress and general health status were independently associated with sickness absenteeism. For further see table 5 and 6 of crosstab results showing p-value of chi-square test.

However, eleven variables with p-value <0.20 were exported to multivariate logistic regression to see their effects on outcome variable and to control confounding effects. The backward stepwise regression was employed and marital status (married, p-value=0.33, widowed/divorced, p-value=0.52), pre-employmentmedical screening (p-value=0.31) and work experiences (p-value=0.18) were found to be insignificant while the rest eight factors remained to be statistically significantly with the sick absenteeism. The same findings were also obtained using the forward stepwise regression. Based on this,secondary education, presence of attendance-based incentive, periodic medical checkup, weekly working hours, overtime work, job dissatisfaction,being stressed with workplace andpoor general health status were statistically significant at 95% CI with AOR (Table 7).

Accordingly, the odds for sick absenteeism were 51% less for those attended secondary education when compared with no education [AOR=0.49, 95% CI (0.30, 0.79)]. The odds for sick absenteeism were 51% less for those not getting attendance-based incentives[AOR=0.49, 95% CI (0.32, 0.75)] when compared with those getting incentives. And the odds for sick absenteeism were 90% higher for those working greater than 48hrscompared tothose ≤48Hrs [AOR=1.90, 95% CI (1.02, 3.53)]. Those who worked OTwere more likely to be sick absent than non-OT doers [AOR=2.80, 95% CI (1.87, 4.16)].

Employees who were not checked/examined periodically for any health conditions were 3.58 times more likely to be sick absentthan those employees whoundertook medical examination [AOR=3.58, 95% CI (2.10, 6.09)].

Similarly, the odds for being sick absent were 76% higher for those dissatisfied with their job [AOR=1.76, 95% CI (1.16, 2.65)] when compared those satisfied with their jobs.Those who were stressed with their workplace were 2.02 times more likely to be sick absent [AOR=2.02, 95% CI (1.38, 2.94)] than those not stressed with their workplace.

Finally, those employeeswho reported their general health status as poor were 3.17 times more likely to be sick absent [AOR=3.17, 95% CI (2.07, 4.87)] than those reporting good general health status (table 7).

Table 7.Factors associated with sickness absenteeism among horticulture employees in Lume District, April 2014 (Bivariate &multivariate analysis)

Category of variables	Sickness absenteeism		COR (95% CI)	AOR (95% CI)
	yes	No		
Educational status				
No education	116	70	1	1
Primary	126	68	1.12(0.74,1.69)	1.17(0.73,1.86)
Secondary	76	77	0.59(0.39,0.92)	0.48(0.30,0.79)*
Above secondary	29	28	0.63(0.34,1.14)	0.59(0.31,1.14)
Attendance-based incentive				
Yes	124	59	1	1
No	223	184	0.58(0.40,0.83)	0.49(0.32,0.75)**
Periodic medical checkup				
Yes	36	50	1	1
No	311	193	2.24(1.41,3.56)	3.58(2.10,6.09)**
Weekly working Hrs				
≤48	302	221	1	1
>48	45	22	1.50(0.87,2.56)	1.90(1.02,3.53)*
Overtime work				
Yes	259	135	2.36(1.66,3.34)	2.80(1.87,4.16)**
No	88	108	1	1
Job satisfaction				
Satisfied	84	83	1	1
Dissatisfied	263	160	1.62(1.13,2.33)	1.76(1.16,2.65)**
Workplace stress				
Not stressed	106	114	1	1
Stressed	241	129	2.00(1.43,2.82)	2.02(1.38,2.94)**
General health status				
Good	65	85	1	1
Poor	282	158	2.33(1.60,3.40)	3.17(2.07,4.87)**

NB. **highly significant (p-value <0.001) *significant(p-value <0.05-0.001)

5. Discussion

In this study the prevalence of three months self-reported sickness absenteeism among horticulture employee was 58.8% with 95% CI (54.9, 62.5).This result is little higher than study conducted in North Gondar Zone among small and medium scale industries which was 53.9% (21).This difference could be due to workplace difference and the later study assessed absenteeism only due to injury and didn't consider other variables (other diseases, job satisfaction, general health status and workplace stress). Similarly, the prevalence of this study is higher when compared with 15.8%(19) and 25% (20)of the Nigerian Ibadan Polytechnic employees and Nigerian teaching hospital staffs respectively. This difference might be due to differences in study population, level of awareness on diseases prevention, accessibilityto health care services and methods of data collection and did not considered self-reported sick absenteeism and individual internal feelings. The prevalence of this study is far higher when compared with 9% in USA (13) and 11-12% in Denmark (14). This low prevalence could be explained due to high economic development, improved occupational health services and literacy level of those workforces in developed countries.

However, the prevalence of this study is lowwhen compared with findingfromIran with 79.8% prevalencesick absenteeism among staffs ofMazandaran University of MedicalScience (17). This variation might be due to the fact that the medical staffs hadhigh job burden that make them negligence to their health and safety,high exposure level to nosocomialinfectionsand also they might have opportunity to take more sick leave for other reasons as most of them were health professionals and staffs of teaching hospital in the university, which might overestimate the prevalence rate of sick absenteeism.

The findings of this study also shows the prevalence of sickness absenteeism was high among female workers, younger 19 to 29 years old, married,and permanent employees. This is similar with previous studies conducted in Nigeria and Estonian (4, 19-21). Eventhough the those previous findings support this study, there might be an obviuos age specific differences with this study particiants.

This study has depicted as age, sex, marital status, employment type and work experience had insignificant association with sickness absenteeism. This finding is in line with findings from India(24).

However, the prior studies among staffs of Nigerian teaching hospitals and Estonian employeeshad shown as sickness absenteeism was significantly associated with sex, low work experience, age and marital status (14, 22, 23). This difference may be due to difference in sample size and demographic characteristics of study populations.

According to this study, the majorcauses of absenteeism were minor illness, typhoid, malaria,diarrhea and MSDs. According to Ethiopian Ministry of health and the local health department report in 2012, typhoid, diarrhea and malaria were among top ten disease of morbidity. This is also supported by study conducted in Nigeria(4, 19).This consistency might be due to the same weather condition (tropical countries),comparablehealth services level and life styles of the study participants. Moreover, minor illness like common cold and headache might be associated with seasonal changes the study area while MSDs might associatewith long term standing work due to nature of work.Likewise, cause of ill absence could be different according to nature of work, geographic location and epidemiological contribution of other factors.

Employees who attendedsecondary education were 51% less likely to be sick absent when compared with those no education [AOR=0.49, 95% CI (0.30, 0.79)]. Additionally, this indicated as odds of sick absenteeism decrease as educational level increases even though significance was not obtained for other educational classes. This result is analogous to study conducted in Estonia and Saudi Arabia(23, 25)where lower education was positively associated with sickness absence.

But study in India has shown insignificant associationof education with sick absence (24). This might be due to the fact thatservice giving companiesmay employ highlyqualified and educated workers than this study work area.

Concerning individual self-rated general health status, this study shows that poor health status was highly significantly associated with sickness absence. [AOR=3.17, 95% CI (2.07, 4.87)]. This finding is similar with study conducted in Nigeria, Estonian and Saudi Arabia(22, 23, 25).

Those employees who were not periodically checkedfor their health conditions 3.58 times more likely to be sick absent than employees who undertook periodic medical examination [AOR=3.58, 95% CI (2.10, 6.09)]. Timely medical examination (health surveillance) helps as preventive medicine detecting and treating early initiation of health problems on regular basis by detecting individual health problems before it goes to hard step. However, its essentiality would vary as the work environment or hazardous level considering the time and costs of this examination. The Ethiopian labour proclamation 377/2003 articles 12/5 and 92/5 also encourage and enforce organizations to arrange medical examination for newly employed workers and for those workers engaged in hazardous work (35).This help employer to know health status of employees periodically, to keep health records of workers up to date and take necessary interventions to protect workers from further harming if workers already exposed health hazards.

As per this study, odds of being sick absenteeism were 51% less for employees who were not getting attendance-based incentive when compared to those getting attendance based incentives [AOR=0.49, 95% CI (0.32, 0.75)].However, the findings from Europe shows as rewards for good attendance were negatively associated with sickness absence (27). This discrepancy might be due to greateconomic and life style difference between the two studies area. In fact employees inthis studymight come up with their health problems to work (sick presenteeim) not to lose benefits. This mightoverwhelm their health and affect quality of the work leading themfor further another long term sick absence.

Thoseemployees working >48hrs/weekwere 90% more likely to be sick absent compared to those≤48hrs/week [AOR=1.90, 95% CI (1.02, 3.53)]. This in line with studies reported in South Africa (24) and Finland (5).The finding of this study also indicates as there is inconsistency with standard set in Ethiopian labour proclamation No.377/2003 Article 62-64(35).The intention behind proclamation is that working above normal working hours (8hrs) would affect health and safety of

workers, quality of work and mental fatigue might also lead workers to risk of accidents. In addition, this proclamation Arts.61 (1) & 90,also limit length of working hours for young worker aged 14 to 18 years, to ≤42 hrs per week. However, according to this study all 23 young workers were working for ≤48 hrs/week, which is above standard, 42hrs.(35)

According to this study, those working OTwork were2.8 times more likely to be sick absent than non-OT doers [AOR=2.80, 95% CI (1.87, 4.16)]. This is supported by previous studies (28). Similarly, EthiopianLabour proclamation 377/2003 article 67 also restricted overtime works only to be done under certainlimited circumstances.Furthermore, this proclamation article 90(2) prohibited employers to engage young employees in overtime work(35). However, according to this study there were about 11 (47.8%) of the total 23 young employees engaged in overtime work. This might affect theiroverall health as they were not matured physically and mentally for high work burdens. This could lead them to be away from work.

Job dissatisfaction was significantly associated with Sickness absence [AOR=1.76, 95% CI (1.16, 2.65)] in which75.8% of sick absenteeswere dissatisfied with their jobs. Thisis similar with previous studies conducted on Japanese and Estonian employees (9, 22, 23). This may stem from psychological factors and also may be linked to the physiological impact of workplace stress.

This study also shows as workplace stress were significantly associated with sickness absenteeism [AOR=2.02, 95% CI (1.38, 2.94)]. Studiesconducted on employees ofFinland, Iran and Estonia supports this finding(8, 17, 23).Though these previous studies support, there isan obvious differenceincluding data collection tools, job categories and nature of work, study population characteristics, workplace and economic status of this study.

6. Strengths and limitations of the study

6.1. Strengths

- The study is conducted in all horticulture organizations in the district in which 8 of 22 horticulture organization in east Shoa zone. Thus, the result could be generalizedto the larger horticulture employee'spopulation from which the study participants were drawn, or even to other populations which are identical or at least very similar.
- Use of standard questionnaire for job satisfaction, workplace stress and general Health status assessment.

6.2. Limitations

- Lack of study with similar setup with this study area for better comparison
- Nature of cross sectional study design. This may be due to the facts that the study was conducted only for short period. As a result those who were severely diseased or injured might be at their home or left the companies before this study.
- Information bias like interviewer bias, social desirability bias and recall bias might affect the results of this study. However, effort were made to control information bias by providing training for data collectors, reducing duration of the study and properly informingparticipants how issues of confidentiality and privacy were addressed through honestly explainingobjective and significances of the this study.
- Seasonal variation might overestimate period prevalence rate of the sickness absenteeism of the last three months, assome diseases like malaria, common cold and diarrhea could be affected by seasonal changes.
- Subjective assessment of participants' for general health status, workplace stress and job satisfactions level which may over/under estimate the true value. But, scales were try to be clarified in terms of an average of weekly day classification.

7. Conclusions

The finding of this study suggests that the three month prevalence rate of sickness absenteeismamong horticulture employees in Lume District was high when compared with other studies conducted in developing country.

Factors like being secondary education and not getting attendance based incentive were positively associated with SA,while working >48hrs/week & overtime work, lack of periodic medical examination, job dissatisfaction, being stressed with workplace and poor in general health status were significantly contributed to rise sickness absenteeism

8. Recommendations

The following recommendations aremade basedon the findings of this study.

For Ministry of education(MoE)

- Develop education policy that encourages workers to continue to secondary education level besides improving the quality of the primary education by considering those at work in achieving targets sets in MDGs for education.

For MOLSA & Ministry of Health or respective regional/zonal bureaus

- To develop comprehensive workplace health care services and health promotion andintegrating this into occupational health and safety programs.
- Strengtheningoccupational health inspection servicesto ensure proper implementation of occupational health laws, especially on the area ofminimum labour conditions and occupational health services.
- Promoting social dialogue between employees and employers.

For the Organizations/employers

- Encourage workers to continue their education to highereducation level.
- Proper implementation of theEthiopian occupational health and safety laws
- Establish social support andreturn to work interview
- Consciously take steps to promote healthy living practices among workers by developing workplace wellness programmes.
- Properly re-evaluate effectives of current incentives systems that mainly focused on the presence of individuals at workplace which may not indicate quality of work, by considering good work performance and othermotivations.
- Execute risk assessment in their organization to take proactive measures to control workplace stressors andhealth and safety hazards in the workplace.
- Establish good employer-employees relationship on regular basis to have better social relation among employees and supervisor or managersin reducing workplace stress and increasing job satisfaction

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10. Annexes

Annex 1: Information Sheet and consent form

Title of Research project: Prevalence ofsickness absenteeism and associated factors among horticulture employees in Lume district, Southeast Ethiopia.

Name of principal investigator:Kamil Ebrahim Dawud (BSc)

Name of Organization: University of Gondar, CMHS, IPH.

Introduction

This information sheet and consent form is prepared for the aim of explaining this research project that you are asked to participate.

The research group includes twelvetrained data collectors, one supervisor, two advisors from UoG and the principal investigator.

The purpose of research project

The main purpose of this research project is to determine Prevalence of Sickness absence and associated factors among Horticulture workers, Lume District, Southeast Ethiopia from March to April 2014. In view of the current increasing of workers absence from their job due to sickness and as workers are absent from work place, both employees and employers are facing from economic and productivity loss. In addition, absenteeism currently,is one of the leading causes of industrial disputes as workers may falsely or genuinelysick and employers may dismiss workers. Therefore, this study will definitely identify factors that contribute for sickness absenteeism. Moreover, the findings will be useful for planning of the best national intervention programsat workplace.

Procedure: The choice will be randomly using lottery method among each horticulture organization's employees.Youwill be among the study participants if you are willing to take part and we kindly invite you to participate in our project.

Benefit, Risk and or Discomfort

By participating in this research project, you may feel discomfort in scarifying your work time (maximum 20 minutes).

However, your participation will much contribute to assess prevalence and factors that contribute for sickness absence.Moreover, it will help to solve problems

arising from absent due to sickness, which is the leading cause of poor employer-employees relationship.

Incentives: You will not be providedany incentive or payment for participating.

Confidentiality: the information collected from you will be kept safe and stored in a file without your nameby assigning a codeand it will never accessible to your employers. Hence, no report of the study will identify individual identity.

Right to refusal or withdraw: You have the right to refuse no to participate or withdraw from the study at any time. But, your honest and willingness participation is very important to generate valid information that will be used for intervention designs.

Who to contactthe research project will be received and approved by ethical committee of Gondar University Institute of Public Health.

If you have any question or doubt, you can contact any one of the following at any time you want.

1. Mr. Kamil Ebrahim - Principal Investigator
   Tel. +251-913348929
   Email –kamilebrahim@yahoo.com or kharmee882@gmail.com
2. Mr.Sebsibe Tadesse (BSc, MPH)– Advisor
   Tel. +251-912893304
   Email–subtadesse90@gmail.com
3. Mr.Zemichaele Gizaw (BSc, MPH) - Advisor
   Tel. +251-913348400
   Email –zemichaele12@gmail.com

Consent form

Good morning/ Good afternoon!

My name is ---------- I work for ----------.I am researcher from UoG MPH program. I am here to assess prevalence of sickness absenteeism and associated factors among horticulture employees. The study has been approved by UOG Ethical review Board. The informationyou give is confidential and will be used only for the study purpose. The study will be conductedthrough interview based standard questionnaire, which is close ended in nature. No name or personal identity will be used to maintain confidentiality. Being a partof the research is voluntary; you have the right to participate or not to participate. However; your honest and willingness participation is very important to generate valid information that will be used for intervention designs. You are randomly selected to participate in the study. The interview is about20 minutes.

Are you willing to participate in the study? 1. Yes 2. No

If you do not wish to participate in the study, I would like to thank you for taking your time to read /discuss the introductory part.

If you have consented to participate sign below…. thank you so much!

Signature _____ Date _____

Name of data collector _____ Sig. _____

Thank you ……. I will start with the first question…

Organization code_____

Respondent code_____

Annex 2: English Version Questionnaire

University of Gondar

College of Medicine and Health Sciences

Institute of Public Health

Part 1: Socio-Demographic Characteristic

No.	Questions	Response	Remark
101	Gender	1. Male 2. Female	
102	Sex	_____ year	
103	Marital status	1. Single 2. Married 3. Widowed 4. Divorced/separated	
104	Current educational status	1. Notable read and write 2. Primary education (1-8) 3. Secondary education (9-12) 4. Above secondaryeducation (certificate, diploma, degree,	
105	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Other_____	
106	How long have you been working in this organization?	____ years and ____ month	
107	Monthly wage	_____ Birr.	
108	Type of employment	1. Permanent 2. Temporary	

Part 2:1.Questions related to sickness absencefrequency, absent days, perceived causes for absenteeism and organizational related factors

No.	Questions	Response	Remark
109	Within the past three months, have you ever encountered health problems (told by your doctor or health experts or perceived by yourself)which led you away from work?	0. No 1. Yes	If 0, go to 117
110	If yes to Q109 for which diseaseor health problem?	_____	More than two answer is possible
111	If yes to Q109 How many times (frequency) you were, absent from work in the previous three months?	_____	
112	If yes to Q109 How many total working day/s you were absent from work within the past three months?	____ day/s	
113	When you were absent, had you noticed/reportedto your employer/supervisor immediately?	1. Yes 2. No	
114	Have you ever been punished (eg.salary deduction) for your being absent due to illness in the past three months?	1. Yes 2. No	
115	Did your colleague ask/support you when you were away from work due to illness?	1. Yes 2. No	
116	Had your organization support you morally, economically and socially when you were sick or retuned back to work in the past 3 months?	1. Yes 2. No	
117	Had your organization made pre-employment medical screening when you were employed first?	1. yes 2. No	
118	During the past twelve months, did your organization undertake any kinds of medical checkup to know your health conditions or for other purpose?	1. Yes 2. No	
119	Has your organization provided you with attendance based reward or incentive for your being on work?	1. Yes 2. No	
120	On Average, how many working hours per week do work?	_____Hrs./week	
121	How many hours overtime (OT) do you work in your job in an average week in the last three months?	----------Hrs/week	If no please mark" 0" as no OT work

2. **Questions related to Job Satisfaction**

For each statement, please circle the number to indicate your degree of agreement/ sensation

S.N	Statement	Strongly Disagree	Disagree	Don't know	agree	Strongly agree
122	I receive recognition for a job well done	1	2	3	4	5
123	I feel close to the people at work	1	2	3	4	5
124	I feel good about working at this company	1	2	3	4	5
125	I feel secure about my job	1	2	3	4	5
126	I believe management is concerned about my health and safety	1	2	3	4	5
127	I believe work is good for my physical health	1	2	3	4	5
128	My wages are good	1	2	3	4	5
129	All my talents and skills are used at work	1	2	3	4	5
130	I get along with my supervisors and mgr.	1	2	3	4	5
131	I feel good at my job	1	2	3	4	5
Total Summation = _____						

3. Questions on the Workplace Stress measure

Thinking about your job and describe how often you feel?

NB. Never (1) = no, rarely (2) =only once, Sometimes (3) = 2-3 times, Often (4) = 4-5 times &Very Often (5) = ≥6 times a week on average.

	Statement	Never	Rarely	Sometimes	Often	Very Often
132	Conditions at work are unpleasant or sometimes even unsafe.	1	2	3	4	5
133	I feel that my job is negatively affecting my physical or emotional wellbeing.	1	2	3	4	5
134	I have too much work to do and/or too many unreasonable deadlines.	1	2	3	4	5
135	I find it difficult to express my opinions/feelings about my job conditions to my superiors.	1	2	3	4	5
136	I feel that job pressures interfere with my family or personal life.	1	2	3	4	5
137	I have adequate control or input over my work duties.	1	2	3	4	5
138	I receive appropriate recognition and rewards for good performance.	1	2	3	4	5
139	Fear of accident/health ailments occurrence at work or due to your work.	1	2	3	4	5
Total summation						

4. General Health Questionnaire (self-rated)

This portion of the questionnaire contains items that are related to your general health in the past three months. Please, think over it& select your choice that expressed your feelings.

NB. Never (1) = no, rarely (2) =only once, Sometimes (3) = 2-3 times, Often (4) = 4-5 times &Very Often (5) = ≥6 times a week on average in the last three months

	Questions	Response				
		Never	Rarely	Some times	Fairly Often	Very Often
140	Your hands, face/body became hot and sweated when you were not in a hot place or exercise	1	2	3	4	5
141	You bothered by shortness of breath when you were not work or exercise	1	2	3	4	5
142	Your mouth and lips became dry	1	2	3	4	5
143	Your muscles felt tight and tense	1	2	3	4	5
144	You were bothered by a headache repeatedly	1	2	3	4	5
145	You felt tired and discomfort when not on work	1	2	3	4	5
146	Your hands shake and trembled when you were not working	1	2	3	4	5
147	You were bothered by your heart beating hard	1	2	3	4	5
148	You were bothered by having an upset stomach or stomach ache	1	2	3	4	5
149	You feel nervous, tense or worried	1	2	3	4	5
150	You feel ill and tired which affected your work	1	2	3	4	5
151	You had a loss of appetite.	1	2	3	4	5
152	You had trouble sleeping at night	1	2	3	4	5
	Mean					

Part 4: Behavioral factors

The following questions is about the past three **months substance use**

No.	**Questions**	**Response**	**Remark**
153	From now back a year, have you used chewing Khat?	1. Yes 2. No	If 2 skip to 154
154	If yes to Q.153, on average how often per week?	_____	
155	In the past year, had you used tobacco products?	1. Yes 2. No	If 2 skip to 157
156	If yes to Q.154, on average how often per week?	_____	
157	Had you ever used alcohol drinks in the past year from now back?	1. Yes 2. No	
158	If yes Q157, how often per week on average?	_____	

Annex 3: Amharic version Questionnaire

የጎንደርዩኒቨርሲቲ የህክምና ጤና ሳይንስ ኮሌጅየህብረተሰብ ጤና ኢንስቴትዩት

የመረጃና የፈቃደኝነትማረጋገጫ ቅጽ

መግቢያ ፡- ይህ የመረጃ ቅጽ የተዘጋጀዉ በሉሜ ወረዳደቡብ ምስራቅ ኢትዮጵያ በአበባ፡አትክልትና ፍራፍሬ ድርጂቶች ዉስጥ ለሚካሄደዉ በህመም ምክንያት ከስራ መቅረትንና ተዛማጅ ችግሮችን ለማየትለሚደረገዉ ጥናት ስለተዘጋጁመጠይቅ ነዉ። ስለሆነምበዚህ ጥናት ዉስጥ የሚሳተፉ ስምንት የሰለጠኑየሙያ ደህንነትና ጤንነት እና ሌሎች የጤና ባለሙዎች፤ አንድሱፐርቫይሰር፤ ሁለትየጎንደርዩኒቨርሲቲ አማካሪዎችና ዋና አጥኚዉ ናቸዉ።

የጥናቱመሳረታዊ አላማ ፡ የዚህ ጥናት ዋና አላማበሉሜ ወረዳ አበባ፡አትክልትና ፍራፍሬ ድርጂቶች ዉስጥ ለሚካሄደዉ በህመም ምክንያት ከስራ መቅረትንና ተዛማጅ ችግሮችን ለመለየት። በአሁኑግዜ ብዙሰራተኞች በህመመ ምክንያት ከስራ ገበታቸዉ መቅራትበእጅጉ አሳሳቢ ጉዳይመሆኑንይታወቃል። በተለይሰራተኞች በህመም ምክንያት ከስራቸዉ ስቀሩአሰሪዉምሆነሰራተኞ ለኢኮኖሚያዊና ፤ማህበራዊናምርትናምረታማነትእየተጋለጡ ናቸዉ። በተጨማሪምሰራተኞችከስራመቅረታቸዉለኢንዱስትሪሰላምመደፍረስ፤ለሰራተኞች ሳይታመሙወይምበትክክል ታሞ ከስራ ገበታቸስቀሩለስራ ስንብት እያጋለጠ መምጣቱና ይህ ድግሞ ለእንዱስትሪ ግጭት በርእንደሚከፍትይታወቃል።

ስለዚህየዚህ ችግር መንስኤዎችን የሚገልጽ ተጨባጭ መረጃዎች የመፍቴህ አቅጣጫን ለማስቀመጥ፤ የተሻለየስራ ቦታ ፕሮግራሞችና ፖሊዎችን ለመቅረጽ ወሳኝና አስፈላጊ ነዉ።

የናሙና አመራረጥመንገድ፡ ጥናቱ ዉስጥ የሚካተቱቋሚ ሰራተኞች ሆኖ ብያንስ ሶስት ወራት ያገለገሉ ስሆን ግለሰቦበነሲብየተመረጡ ናቸዉ።

ምቹ ያልሆነሁኔታዎች ፡ በዚህ ጥናት ዉስጥ በመሳተፎዎ በተለያያ አልያም ባልታወቀ ምክንት ምቹ ያልሆኑሁኔታዎች ሊያጋጥሙ ይችላሉ፤ይሁንእንጂ ጥናቱከሚኖረዉ ጥቅም እንጻር ሊወዳደርአይችልም።

ጥቅም፡ በዚህ ጥናት በቀጥታ ተጠቃማ ላይሆኑይችላሉይሁንእንጂ ችግሩን በመቅረፍህደት ዉስጥ ቀትተኛ ተሳታፊ ነዎት።

ጉርሻ፡ በዚህ ጥናት ዉስጥ በመሳተፍዎ ጉርሻአይኖረዉም።

ሚስጥርመጠበቅ ፡የሚሰበሰቡመረጃዎችሚስጥራቸዉ የተጠበቀመሆኑን አረጋግጣለዉ።ለዚህ ስባል በስምዎ ሳይሆን በሚስጥር ቁትር ይወከላሉ። በመጠይቁ ሂደት ዉስጥ ለማቆምከፈለጉ በማንኛዉም ሰዓት በቀላሉ ሊያቆሙ ይችላሉ።ይሁንእንጂ የእርስዎ ሀቀና ተሳታፉ መሆን የጥናቱን ዋጋ ባለዉ መረጃየተመሰረተለማድረግ ከፍተኛ አስተወጽኦ አለዉ።

አድራሻ፡ ስለ ጥናቱመጠይቅከፈልጉበሚከተለዉ አድራሻይጠቀሙ፤ -

1. ካሚል ኢብራሂም - ዋና አጥኚ
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የፈቃደኝነትማረጋገጫ ቅጽ

እኔ ---------- እበላለሁ። የሚሰራዉ ----------

በጎንደርዩኒቨርሲቲ የህክምናና ጤና ሳይንስ ኮሌጅበህብረተሰብ ጤና አጠባበቅ ኢንስቲትዩትየድህረምረቃ ትምህርት የመመረቅ ትናት ስራቸዉን እየሰሩ ካሉትአቶ ካሚል ኢብራሂም ጋር በጋራ እየሰራሁ ነዉ።እዚህ እርሶና ሌሎች የስራ ባለደረባዎች ለዚህ ጥናት የተመረጣችሁትከአጠቃላይ ሰረተኛዉ ዉስጥ ባወጣነዉ የእድልሎተሪ እጣ መሰረት ነዉ።ከዚህበመቀጠልበህመም ምክንያት ከስራ መቅረትንና ተዛማጅጉዳዮች ዙርያየተወሰኑጥያቄዎችን ልጠይቆትአወዳለሁ። ስለዚህየዚህ ጥናት ተሳታፊ እንዲሆኑእየጠየኩተሳትፎዎ በፍቃደኝነት ላይ የተመሰረተመሆኑንለማሳዋቅ እወዳለሁ።ፍቃደኛ ከሆኑበስምምነትፍርማዉ ቦታ ላይ ፍርማዎንእንዲያስቀምጡእጠይቃለዉ። በመጠይቁ ሂደት ዉስጥ ለማቆምከፈለጉ በማንኛዉም ሰዓት ሊያቆሙ ይችላሉ።ይሁንእንጂ የእርስዎ ህቀኛ ተሳታፉ መሆን የጥናቱን ቅርጽ በትክክለኛ ወይም ዋጋ ባለዉ መረጃየተመሰረተለማድረግ ከፍተኛ አስተወጽኦ አለዉ።ከዚህ ጥናት ጋር በተያያዘ በማንኛዉም ቦታና ጊዜ ስም እንደማይጻፍእንደማይጠቀስልንገልጽላችሁእንወዳለን።በአማካይቃለመጠየቁ 20 ደቂቃይወስዳል።

በጥናቱለመሳተፍ ፍቃደኛ ነዎት?አዎ □አይደለሁም□

ፍቃደኛከሆኑፍርማዎንበማስፈርፍቃደኝነተዎንያረጋጡልን!

የተሳታፊፍርማ---------- ቀን ----------

የመረጃሰብሳቢስም----------ፍርማ ----------ቀን ----------

ስለተሳተፉ በጣም አመሰግናለዉ!

የድርጂቱኮድ ----------

የመጠይቅ ኮድ ቁጥር ----------

የጎንደርዩኒቨርሲቲ

የህክምናና ጤና ሳይንስ ኮሌጅየህብረተሰብ ጤና አጠባበቅ ኢንስቲትዩት

በህመም ምክንያት ከስራ መቅረትንና ተዛማጅጉዳዮች ለማጥናት የተዘጋጀመጠይቅ

ክፍል አንድ፡ ማህበራዊና ስነ-ህዝባዊ የሚመለከትመረጃዎች

ተ.ቁ	*ጥያቄ*	*መልስ (በኮድ)*	*ማስታወሻ*
101	ጸታ	1. ወንድ 2.ሴት	
102	እድሜበአመት	----------	
103	የጋብቻሁኔታ	1. ያላገባ/ች 2. ያገባ/ች 3. ሚስት/ባልየሞተበት/ባት 4. የፈታ/ች	
104	የትምህረትደረጃ	1. ማንበብናመጻፍየማይችል/ትችል 2. አንደኛደረጃ ት/ት (ከ1ኛ-8ኛ) 3. ሁለተኛደረጃ ት/ት (9-12) 4. ከሁለተኛደረጃ ት/ትበላይ	
105	ሀይማኖት	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ሌላ/ይጥቀሱ----------	
106	አሁንከሚሰሩበትድርጂትምንያክልአመትሰርተዋል ?	---------- ዓመት ከ---------ከበወር	
107	ወርሃዊገቢ/ደመወዝ	---------- ብር	
108	የቅጥርሁኔታ	1. ቋሚ 2. ጊዜያዊ	

ክፍልሁለት ፡ ነ.በህመም ምክንያትከስራመቅረትጋርየተያያዙጉዳዮችንየሚመለከትመጠይቅ

ተ.ቁ	ጥያቄ	መልስ (በኮድ)
109	ባለፉትሶስትወራትዉስጥከስራየሚያስቀርየጤናችግርአጋጥሞትያዉቃል? **(በሓክምና ተነገሮት ወይም በራስዎ ይሆናል ብሎያሰቡት)**	1. አዎ 0.አያውቅም
110	ቁ.109 አዎከሆነለየትኛዉጤናችግርነበርየተጋለጡት/ጋጠመዎት?	----------
111	ለጥያቄ ቁ.109 አዎከሆነምንያክልጊዜ (በተደጋጋሚ) ከስራቀርቷል?	----------
112	ለጥያቄ ቁ.109 አዎከሆነበአጠቃላይስንትየስራቀናትቀርቷል?	----------ቀን
113	ታሞከስራየቀሩበትጊዜአሰሪዎትን/የክፍልአለቃዎትንአሳዉቀዉያዉቃሉ?	1. አዎ 2. አላዉቅም
114	ታሞከስራየቀሩበትጊዜአሰሪዎየዲሲፕሊንእርምጃ(ለምሳሌደመወዝቅነሳ) ወስዶበዎትያዉቃል?	1. አዎ 2. አያዉቅም
115	ህመምላይእያሉየስራባልደረባዎጠይቅዎት/ድጋፍአድርጎለትያዉቃሉ?	1. አዎ 2. አያዉቅም
116	ድርጂትዎህመምላይእያላቸሁወይምወደስራስትመለሱየሞራልናኢኮኖሚድጋፍአድረጎለትያዉቃል?	1. አዎ 2. አያዉቅም
117	ወደዚህድርጂትከመቀጠርዎበፊትየቅድመ- ጤናምርመራተደርጎለትያዉቃል?	1. አዎ 2. አላደረገም
118	ባለፉት 12 ወራትዉስጥበድርጂተዎየርስዎንየጤናምርምራአድርጎለትያዉቃል?	1. አዎ 2. አያዉቅም
119	ድርጂትዎከስራባለመቅረትዎሸልማትወይመማበረታቻአበርክቶለትያዉቃል?	1. አዎ 2. አያዉቅም
120	በአማካይበሳምንትስንትሰዓትይሰራሉ?	----------
121	ባለፉትሶስትወራትዉስጥበዓማካይበሳምንትስንትየትርፍሰዓትስራይሰራሉ? (ካልሰሩዜሮይበሉ)	---------- ሰዓትበሳምንት(በአማካይ)

2.የስራ እረካታንይመለከታከል

ከዚህቀጥለዉያለዉንየስራእርከታዎንየሚገልጽጥያቄዎችበተቀመጡደረጃዎችዉስጥይምረጡ ::

ተ.ቁ	ጥያቄ	በጣምአልስማማም	አልስማማም	አላዉቅም	እስማማለዉ	በጣምእስማማለዉ
122	ጥሩስራስሰራበአሰሪዬእዉቅናእድገትይሰጠኛል፡፡	1	2	3	4	5
123	ከስራባልደረቦቼጋርጥሩግኙኝነትአለኝ፡፡	1	2	3	4	5
124	በዙህድርጂትዉስጥበመስራቴደስተኛነኝ፡፡	1	2	3	4	5
125	ስራዬንበቋሚነትእንደሚቀጥልአልጠራጠርም	1	2	3	4	5
126	አሰሪዬለጤንነትናደህንነቴትልቅቦታይሰጣል	1	2	3	4	5
127	በአጠቃላይስራዬለአካላዊጤንነቴጥሩነዉ፡	1	2	3	4	5
128	በሚከለኝደመወዝደስታኛነኝ፡፡	1	2	3	4	5
129	ሙሉአቅሜን፡ ችሎታዬንናየሙያብቃትለስራዬአዉላለዉ፡፡	1	2	3	4	5
130	ከሱፐርቫሰሬናሀላፊዎቼጋርጥሩቀረቤታአለኝ	1	2	3	4	5
131	በስራዬደስተኛነኝ	1	2	3	4	5
ድምር						

3. ስለስራቦታጭንቀትለመገምገምየተዘጋጀመጠይቅ

በሚቀጥለዉአምስትምርጫዎችን(ከ1-5) የሚስሞዎትስሜትየሚገልጽይምራጡ

ተ.ቁ	ጥያቄ	በጭራሽ(0)	በጣምዉስን(1)	አልፎአልፎ (2-3)	አብዛኛዉን ጊዜ (4-5)	ሁልጊዜ(6+)
132	የስራቦታዬምቹናተስማሚአይደለም	1	2	3	4	5
133	እኔእንደማስበዉስራዬበጤናዬላይችግርእያሰከተለብኝ አንደሆነይሰማኛል	1	2	3	4	5
134	ስራዬአጣዳፊናጫናየበዛበትነዉ	1	2	3	4	5
135	ስለስራሁኔታናየስራቦታችግሮችለአላቃዬመግለጽእቸገራለዉ/እፈራለዉ	1	2	3	4	5
136	ያለብኝየስራጫናበግሌናበቤተሰቦቼህይዎትላይጫናእያሰደረብኝነዉ	1	2	3	4	5
137	ስራዬንበሚገባመስራትናመቆጣጠርእችላለዉ	1	2	3	4	5
138	ባለኝችሎታናአዉቀትመሰረትተገቢዉንማበረታቻአገኛለዉ፡፤	1	2	3	4	5
139	በስራቦታዬአደጋወይምየጤናችግርሊያጋጥመኝይችላልብዬእፈራለዉ፡፡	1	2	3	4	5
ድምር						

ክፍልአራት ፡ የግልየጤናሁኔታንለማወቅየተዘጋጀመጠይቅ

1.ከዚህቀጥሎየሚንጠይቆትባለፉትሶስትወራትያጋጠመዎትንናያስቸገረዎትንየጤናችግርበተመለከተይሆናል፡፡በጣምአስታዉሱ ትናከተሰጥትዎት 5ቱ(1-5) እርከኖችዉስጥየአርሰዎንጤናሁኔታየሚገልጽአንዱንይምረጡ፡፡

ተ.ቁ	ጥያቄ	በፍፁም	በጣምዉስን	አልፎአልፎ	አብዛኛዉን ጊዜ	ሁልጊዜ
140	ከስራቦታውጭእጅዎን፡ ፊትዎ/ገላዎንያልቦታል፡የሙቀትስሜትይሰመዎታል፤	1	2	3	4	5
141	የትንፋሽአጥረትችግር/ስሜትመሰማት	1	2	3	4	5
142	የአፈዎ/ከንፈሮመድረቅምልክትናስሜት	1	2	3	4	5
143	የጡንቻመሸማቀቅናድካምስሜት	1	2	3	4	5
144	በተደጋጋሚበራስምታትመቸገር	1	2	3	4	5
14	ከስራቦታዉጭድካምናድብርትመሰማት፤	1	2	3	4	5
146	የእጅዎመንቀጥቀጥስሜትይሰመዎታል	1	2	3	4	5
147	የልብምትሁኔታያሳስብዎታል፤	1	2	3	4	5
148	በጣምስናደዱ/ስጨነቁበሆድህመምመቸገር	1	2	3	4	5
149	የፍርሃትናጭንቀትምልክት/ ስሜትመሰማት	1	2	3	4	5
150	ስራዎንየሚንዳድካምናህመምስሜትመሰማት	1	2	3	4	5
151	የምግብፍላጎትመቀነስ	1	2	3	4	5
152	የእንቅልፍማጣትችግር	1	2	3	4	5

ክፍልሶስት ፡ የአስኮል፡ ስጋራናጫት ስጠቃቃምልማድይመለከታል

1. አሁንየሚጠይቅዎትባለፉትሶስትወራትዉስጥስለሱስነክነገሮችአጠቃቀምይመለከታል

ተ.ቁ	ጥያቄ	አዎ	አደለም	
153	ባለፉት 12 ወራትዉስጥጫትቅሞያዉቃሉ?	1	2	2ከሆነወደ 142 ይለፉ
154	መልሰዎአዎከሆነበሳሚንትበአማካይምንያህልጊዜይቅማሉ?	----------		
155	ባለፉት 12 ወራትዉስጥትምባሆወይምስጋራአጭሰዉወይምተጠቅሞያዉቃሉ?	1	2	2ከሆነወደ 144 ይለፉ
156	መልሰዎአዎከሆነበአማካይበሳምንትምንያክልያጭሳሉ?	----------		
157	ባለፉት 12 ወራትዉስጥየአልኮልመጠጥተጠቅመዉያዉቃሉ?	1	2	
158	መልሰዎአዎከሆነባማካይበሳምንትምንያክልግዜ?	----------		

Annex 4: Declaration

I, the undersigned declare that this is my original work in the partial fulfillment of the requirement for Master of Public health.

Student's Name:Kamil Ebrahim (BSC)

Signature _____

Date_____

Place of Submission: IPH, CMHS, UOG.

Approval of Advisors:

This thesis has been submitted for the examination with my /our approval as university advisor/s.

Advisor/s

1. Sebsibe Tadesse (BSc, MPH) 2. Zemichael Gizaw (BSc, MPH)
   sign. _____ Sign. _____
   Date _____Date _____